

ABSTRACT OF THE DISCLOSURE

A refrigeration system includes a compressor, a gas cooler, an expansion device, and an evaporator. Refrigerant is circulated through the closed circuit system. Preferably, carbon dioxide is used as the refrigerant. As carbon dioxide has a low critical point, systems utilizing carbon dioxide as a refrigerant usually require the refrigeration system to run transcritical. When the system is operating inefficiently, the system is modified so the system operates efficiently. First, a parameter of the system is monitored by a sensor and then compared to a stored value to determine if the system is operating inefficiently. If the system is operating inefficiently, the system is modified to an efficient system.

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